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CULEX STIGMATOSOMA AND CX. PEUS: IDENTIFICATION OF FEMALE ADULTS IN THE UNITED STATES¹

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A recent taxonomic study (Strickman 1988) has resulted in nomenclatorial changes in the names *Culex stigmatosoma* Dyar 1907, *Cx. peus* Speiser 1904, and *Cx. thriambus* Dyar 1921. Careful examination of the holotype of *Cx. peus* (a female adult originally collected in Oak Creek Canyon, Coconino County, Arizona) demonstrated that the specimen is actually conspecific with *Cx. thriambus*, not *Cx. stigmatosoma*. As a result, *Cx. thriambus* is now a synonym of the older name, *Cx. peus*, and *Cx. stigmatosoma* is resurrected from synonymy. Use of *Cx. stigmatosoma* should not cause a problem, since it was a synonym of *Cx. peus* only since 1958 (Stone 1958) and the name has not been used for any other species. On the other hand, use of *Cx. peus* for the former *Cx. thriambus* will probably cause confusion. Until workers become accustomed to the change, the species might best be designated as "*Cx. peus* (formerly *thriambus*)."

In the course of examining specimens supporting the nomenclatorial changes, a problem

was found in the use of current key characters (Darsie and Ward 1981) for separating female adults of *Cx. stigmatosoma* and *Cx. peus*. This note provides additions to Darsie and Ward's key to adult females which should make identifications more accurate. The larval key is entirely adequate to separate the species and only required modification of the nomenclature.

The problem in the *Culex* key begins at couplet 4(3) (page 86), which offers the choice of possessing a complete proboscis band of light scales (eventually leading to *Cx. stigmatosoma*, using the name *peus*) or not possessing a complete band (eventually leading to *peus*, using the name *thriambus*). This character does not distinguish all specimens of the 2 species, in that 18% of the *Cx. peus* examined had a complete proboscis band and 100% of the *Cx. stigmatosoma* examined also had a complete proboscis band (Strickman 1988). The problem in the key can be resolved most simply by allowing *Cx. peus* to appear twice, distinguishing the specimens with a complete proboscis band on the basis of the presence of white opaque scales on the palpi of *Cx. stigmatosoma* and the absence of such scales on *Cx. peus*. The key can be further clarified by modifying couplet 3 to include basal and apical bands only on hindtar-

¹ Opinions and assertions contained herein are the private views of the author and are not to be construed as official, nor as reflecting the views of the supporting agencies.

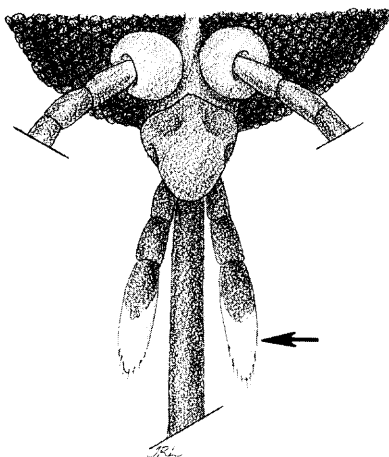


Fig. 359a. Dorsal view of head -

Cx. stigmatosoma

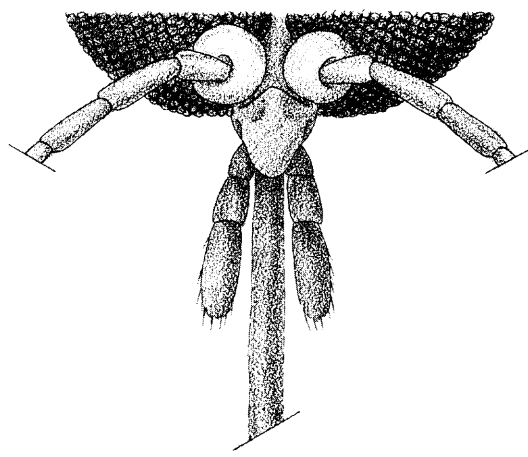


Fig. 360a. Dorsal view of head - Cx. peus

Fig. 1. Illustrations of *Culex stigmatosoma* and *Cx. peus* for insertion into Darsie and Ward (1981), page 87.

someres 1-4, since hindtarsomere 5 is usually completely white in *Cx. peus*. Additions to the key are:

- 1) Change the second choice for couplet 5 (page 86) from "6" to "5A."
- 2) Add the following between couplets 5 and 6 (pages 86-87):

5A(5). Terminal palpomeres with at least one broad, white, opaque scale (Fig. 359a) 6

Terminal palpomeres without white scales; sometimes with narrow pearly scales (Fig. 360a) *peus*
- 3) Change "*peus*" to "*stigmatosoma*" in couplet 6 and Figs. 365, 366 (page 87).
- 4) Change "*thriambus*" to "*peus*" in couplet 7 (page 87) and Fig. 367 (page 88).
- 5) Change the first half of couplet 3 (page 86) to specify "Hindtarsomeres 1 to 4" rather than "Hindtarsomeres."

Outside of the key to adult females, nomenclature can be corrected by changing "*thriambus*" to "*peus*" in couplet 5 and Fig. 833 on page

192, in Table 3 on page 229, in Plate 39 on page 264, in the Appendix on pages 301 and 308, and in the Index on page 313. Change "*peus*" to "*stigmatosoma*" in couplet 11 on page 193, in Figs. 844 and 845 on page 194, in Table 3 on page 229, in Plate 37 on page 262, in the Appendix on pages 301 and 308, and in the Index on page 312.

I would like to thank Taina Litwak for preparation of the figure.

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